

**SENIOR
SERVICE COLLEGE
FELLOWSHIP
RESEARCH
PAPER**

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

**NATIONAL GUARD MAINTENANCE AS A STRATEGIC
READINESS RESOURCE FOR THE LEGACY FORCE**

BY

**LIEUTENANT COLONEL JESSIE R. ROBINSON
United States Army**

**DISTRIBUTION STATEMENT A:
Approved for public release.
Distribution is unlimited**

**USAWC CLASS OF 2002
Senior Service Fellow**



U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013

20020806 182

USAWC FELLOWSHIP RESEARCH PROJECT

**NATIONAL GUARD MAINTENANCE AS A STRATEGIC READINESS RESOURCE FOR THE
LEGACY FORCE**

by

Lieutenant Colonel Jessie R. Robinson
United States Army

Jerry G. Davis, Ph.D.
Project Advisor
University of Texas at Austin

The views expressed in this academic research paper are those of the author
and do not necessarily reflect the official policy or position of the U.S. Government, the
Department of Defense, or any of its agencies.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

DISTRIBUTION STATEMENT A:

Approved for public release.
Distribution is unlimited.

ABSTRACT

AUTHOR: LTC Jessie R. Robinson

TITLE: National Guard Maintenance as a Strategic Readiness Resource for the Legacy Force

FORMAT: Strategy Research Project

DATE: 09 April 2002

PAGES: ##

CLASSIFICATION: Unclassified

The National Guard currently has a huge maintenance infrastructure throughout the Nation that is not being fully exploited as a Readiness producing tool that could benefit the entire Army. The National Guard has shown its ability to operate rebuild sites at multiple locations throughout the Country. These have extended the useful life of multiple weapons systems and vehicles. The bottom line cost to complete the work was significantly less than depot level facilities and much lower than contractors.

The National Guard currently operates 5 Regional Support Maintenance Sites, multiple Mobilization and Training Equipment Sites, and several Combined Support Maintenance Shops. Most headquarters units have Organizational Maintenance Shops within the local regions. All of these facilities are manned with highly skilled maintenance technicians. Most of which have spent considerable careers on Legacy Force weapons systems and vehicles.

In this environment of constrained budgets competing with required research and development, it is critical that the Army is able to mitigate the risk of transformation by having a robust and ready Legacy Force. This Legacy Force will rely heavily on current weapons systems and chassis, most of which are severely aging. The challenge is to extend the useful life of these weapons systems as cheaply as possible. There may be a match between the ready and relatively inexpensive work force that the National Guard has access to and the strategic needs of the Army. The ability of the National Guard to surge this work force in numbers is unclear, but worthy of consideration.

National Guard soldiers are challenged to maintain proficiency in assigned Military Occupations due to the limited training time that is allotted. In areas where we can employ these individuals in daily work that relates to a military occupation, it is safe to assume that the effectiveness of these soldiers will greatly increase. There should be a pronounced effect on readiness in areas where this technique is exploited. There may be a strategic shift in force structure that needs to be considered which would align high priority maintenance units, with areas of the country that are successful with rebuild programs.

As a part of this discussion some consideration should be given to the fielding of new weapons systems that are a result of transformation. There may be strategic merit to the fielding of these systems to Enhanced Brigades of the National Guard to ensure that a pool of expertise and experience is developed over time with the newer systems. The federal technicians that make up the largest portion of the maintenance work force at these facilities are very stable, with very little turn-over, which leads to long-term expertise. The National Guard Divisions seem perfect to fill the vacuum as Active Forces reduce readiness during transformation.

Some attention will have to be paid to legislative initiatives that will be required if National Guard assets were used in this manner. Civilian contractors refurbishment work may be threatened, and will likely call on legislative leaders for intervention. Where possible, it may be of benefit to orient the defense industrial complex on future weapons systems. The required extension of the life cycle of the Legacy Force weapons systems must be done at the lowest possible cost, with a good product, and when possible it should enhance the overall readiness of the Army.

The purpose of this paper is to take a look at the maintenance apparatus of the National Guard and compare the abilities with the needs of the Army within the scope of Transformation.

TABLE OF CONTENTS

ABSTRACT	II
NATIONAL GUARD MAINTENANCE AS A STRATEGIC READINESS RESOURCE FOR THE LEGACY FORCE.....	1

HISTORY OF THE REBUILD PROGRAM	2
SOUTHWEST ASIA PROGRAM.....	2
RETROEUR	2
GENERAL SUPPORT MAINTENANCE SITE	4
OTHER INITIATIVES	6
EVALUATION OF SUCCESS	7
SURGE CAPABILITY	8
ABILITIES OF MATES, CSMS, AND OMS	8
LEGISLATIVE PARAMETERS.....	9
CURRENT LAWS.....	9
CLARIFICATION ON CHANGES THAT MAY BE NEEDED	11
CURRENT NATIONAL GUARD MAINTENANCE POSTURE IN TERMS OF FORCE STRUCTURE	11
CURRENT LEVELS OF MAINTENANCE STRUCTURE.....	12
DOES A STRATEGIC NEED EXIST?	13
IMPLICATIONS TO OVERALL ARMY READINESS.....	14
EQUIPMENT READINESS.....	14
MOS READINESS FOR NATIONAL GUARD	15

LIKELY COST SAVINGS THAT WILL PROVIDE FOR ADDITIONAL READINESS	
IN OTHER AREAS.....	15
RECOMMENDATIONS.....	16
CONCLUSIONS.....	17
ENDNOTES	19
BIBLIOGRAPHY	21

NATIONAL GUARD MAINTENANCE AS A STRATEGIC READINESS RESOURCE FOR THE LEGACY FORCE

Maintenance excellence has long been a well-known strength of the National Guard. Significant portions of the Guard infrastructure throughout the Nation are maintenance facilities. Although the condition of these facilities varies widely from state to state, the experience and expertise of the maintenance technicians that occupy these facilities is outstanding. The verification of reasonably high operational readiness percentages on extremely old equipment reinforces this expertise.

There have been attempts in the past to capitalize on this particular Guard strength, some successful and some never really getting off the ground. There are several on-going initiatives that have seen some reasonable successes and valuable savings to the Department of Defense. When compared to the potential savings that could be realized if programs of significant size were started and supported by the senior leaderships of the Army and the National Guard, these savings are miniscule. The expertise exists in the National Guard today to rebuild any piece of rolling stock or weapon system platform in the Legacy Force inventory at a substantial savings when compared to private contractors or depots.

Most senior leaders in the Army do not seem to have a good understanding of the capabilities of the National Guard. It is imperative that we bridge that gap of knowledge to ensure that all components are properly utilized to their greatest potential. This will increase the chances of a successful transformation, and will mitigate the risk to the Nation as we undergo dramatic changes. The monetary impact of a sweeping transformation is staggering. Military acquisition professionals should deliver the best possible product for the least possible cost to the taxpayer. Most legacy force systems are 15-30 years old, and are significantly increasing the maintenance cost to the Army. To be viable contributors to the transformed force, these vehicles and weapon systems have to be retrofitted with newer technology, and recapitalized to

extend the life of these systems. Technology will allow for leveraging on the battlefield, but the unknown raises the level of risk that would normally be mitigated through mass. The legacy force systems are the method to lower that risk and ensure adequate forces and weapon systems are on hand for large contingencies.

HISTORY OF THE REBUILD PROGRAM

SOUTHWEST ASIA PROGRAM

At the conclusion of Desert Storm, there was an unprecedented amount of rolling stock that was in a very poor state of repair. The equipment status drained readiness across the force. An initiative was put forth for the National Guard to implement a temporary maintenance program to repair and return this equipment to Technical Manual 10/20 standards. Ten sites established with 487 soldiers as part of the project to repair approximately 6000 vehicles.¹ The types of equipment included High Mobility Multi-Purpose Wheeled Vehicles (HMMWV), Commercial Utility Cargo Vehicle (CUCV), 2.5-ton trucks, and 5-ton trucks. This was the first time that the National Guard's ability to surge a workforce specifically in the maintenance area was proven. This project paved the way for follow on programs that began to cross component lines.

RETROEUR

In the early 1990's, the orders were given to begin the process of drawing down the size of the U.S. Forces in Europe. Because of the units that were stationed there, most of the equipment being shipped back included first generation M1A1 ABRAMS Tanks and M2A1 Bradley Fighting Vehicles along with assorted track vehicles and a significant amount of assorted rolling stock. Most of this equipment had been sitting idle for an extended period of

time and was in very poor condition. The Army had to come up with a way to recapitalize this equipment in the most inexpensive manner due to constrained budgets. Although it was clear that some pieces of equipment would go to the National Guard and Reserve, the disposition of the total inventory even after recapitalization was unclear. The Department of the Army asked National Guard Bureau about the possibility of the National Guard rebuilding this equipment.

These discussions led to business plans being developed in several states to support a Rebuild Program, and the National Guard Bureau (NGB) selecting two states to rebuild tanks based on a competitive bidding process over several months. Financing for the program came through the NGB, and the two sites began receiving and rebuilding equipment. The selection process by NGB was a significant event for all the states competing for a facility. This initiative resulted in a substantial rebuild program that defense contractors and depot facilities did not compete for.

With sites being established in Kansas, Kentucky, Mississippi, Pennsylvania, Ohio, and Oregon. The program was hugely successful. These sites employed 451 personnel with direct oversight by the NGB. Budgets were funneled through the headquarters of the host states, and were usually managed by the Director of Logistics. This program supported all components of the Army, and even delivered some tanks to the Marine Corps. The sites successfully received and processed 8,927 pieces of wheeled and track vehicles.² While quality issues did arise during the early days of the program, close NGB scrutiny and support from host state leadership resolved those problems.

Although estimates varied widely, the cost savings to the Army were significant. These sites and the NGB touted cost benefits as high as a 1:12 ratio when compared to similar repairs done at existing depot hourly costs.³ This was designated as a limited-scope program for a finite number of vehicles being repaired. Once the numbers were met, the sites began to close or transition to new requirements from September 1996 through September 1998.

GENERAL SUPPORT MAINTENANCE SITE

In the mid 1990's, the leadership at NGB realized a significant shortfall in trucks within the National Guard Force Structure.⁴ The Department of the Army had made a decision to shift all wheeled vehicle (truck) procurement dollars to the Family of Medium Tactical Vehicles (FMTV). The National Guard was a part of the initial fielding, but the first significant allocations were not scheduled until 2015.⁵ Most of the trucks in the current fleet were already 25-30 years old. The increasing level of maintenance dollars required to maintain the desired level of readiness severely strained logistics dollars. Based on the success of past maintenance programs, the NGB looked to the states once again to compete for rebuild programs that would extend the life of the fleet at an affordable cost. The intent was to provide required fleet to priority units and complete the process well below depot prices.

In August of 1995, a memorandum was sent to the states asking for all interested parties to put together a business plan and submit their plan for consideration. The memorandum confirmed the significant problems with maintenance budgets, which were worsened by the receipt of significant numbers of ABRAMS Tanks and Bradley Fighting Vehicles received in the Guard without the required increase of maintenance dollars to properly support inventories.⁶ This made the truck problem worse. The letter even referred to a little-known program that NGB had worked out with the Marine Corps for maintenance support due to very affordable rates when compared to other Department of Defense entities. Based on past experience, the leaders were confident that selected states could provide these services at even more competitive rates.

The decision was made to start performing all of the Army National Guard's (ARNG) wheeled vehicle maintenance in-house. Two General Support Maintenance Facilities were established to handle the workload. These sites would service and repair vehicles from all states with funding and priority of workload provided by the NGB. The intent was not oriented

for routine maintenance. It was strictly dedicated to total refurbishment or remanufacturing of tactical wheeled vehicles.

The decision to establish sites was largely based on past experience and cost comparisons. Once the Request for Proposal was sent to the states, formal business plans were submitted and a decision matrix was developed. The states with existing infrastructure had a distinct advantage due to the decreased start-up cost. In the final determination, two states were selected. The 2.5-Ton Truck Rebuild Sites were established in Mississippi and Kansas. The sites operated very efficiently and successfully for a couple of years.

During the funding cycle for Fiscal Year 1998, the National Guard Truck Rebuild Program received unusual scrutiny by the Legislative Branch, Office of the Secretary of Defense, and The Department of the Army.⁷ Representatives of two defense contractors raised issues relating to the National Guard competing with the private sector for contract work. AM General and Osh Kosh Trucks had rebuild sites that were currently doing refurbishment work for the Army, and they were simply securing future funding streams. The National Guard had a significant financial advantage to the Army, but legislation was introduced that required current existing overhead costs to be included in the formula. They were referred to as fully burdened costs, which included overhead expenses associated with the day-to-day operation of a host installation. Clearly, these were costs that would exist with or without the rebuild programs being resident on the installations. The taxpayer was not the main consideration in these deliberations. The costs of operations of all the programs were less credible due to political posturing.

After a litany of political posturing, legislation was passed that limited the activities of this program to only National Guard equipment. The defense contractors and the Depot Caucus decided that the threat to funding streams was not significant as long as the National Guard did not venture outside its own inventory. Clearly, the Department of Defense did not get the maximum "bang for the buck" in the contractor rebuild program.

By this time, additional sites had been established in Texas, Maine, and Oregon. The sites transitioned to a Reliability Centered-Inspect Repair Only as Necessary (RC-IRON). The Army National Guard had identified 141,000 pieces of wheeled vehicle rolling stock and a significant number of pieces of electronic equipment.⁸ A Standard Operating Procedure (SOP) was implemented throughout all the sites. The business processes were formalized, and, it sealed the fate of the General Support Maintenance Sites. They currently operate as established and reliable facilities.

The following year, a name change for this program was directed in a 20 October 1999 memorandum from the NGB. It seemed as though the word “rebuild” and “refurbish” generated an unmanageable level of Congressional interest. The name change was made to more clearly reflect the current and future doctrinal General Support maintenance missions. The equipment refurbishment program was renamed Readiness Sustainment Maintenance Program, and the sites were renamed Readiness Sustainment Maintenance Sites (RSMS)⁹.

The mission has grown to include processing trailers, engineer equipment, bulldozers, HMMWVs, and other assorted major end items. All work is accomplished in accordance with strict and specific statements of work. This program continues to operate today, and serves as a testament to the National Guard’s ability to operate this type of maintenance program. Four of the sites specialize in rolling stock and one site handles Night Vision Devices (NVD). Through the receipt and processing of over 11,000 NVD’s, this site has made a critical impact on critical shortfalls throughout the National Guard in this area.¹⁰

OTHER INITIATIVES

The ARNG has other maintenance related programs that should be mentioned to reinforce the organization’s ability to implement new programs. The controlled humidity preservation (CHP) program was implemented to contend with declining materiel readiness

caused by equipment being exposed to the environment during periods of non-use. Since its initial inception, the program has shown a cost avoidance in maintenance dollars and a return on investment that has been validated at 7:1.¹¹

The ARNG has participated with other major commands in the Army's Integrated Sustainment Maintenance Program since its Proof of Principle in FY 93. In this program, Active Component General Support maintenance activities referred to as Centers of Excellence compete for component repair work. The latest reported numbers for this program are for fiscal year 2000, and the Army National Guard's participation and success are impressive. Thirty-eight states shipped 7,632 General Support Repairables Exchange components to Centers of Excellence. The Centers of Excellence logged more than 40,000 hours in the repair of components and returned 6,563 for customers use. This work resulted in a cost avoidance of \$20.7 million for the customer states.¹²

EVALUATION OF SUCCESS

Most of the programs that have been implemented have been highly successful when the assessment criteria was based on cost avoidance and on actual dollars relative to cost associated with the same work being done by civilian contractors or army depots. These programs have been based on basic business principles and practices similar to those found in the private sector. The overall winner in each of these scenarios is the taxpayer who gets the maximum level of defense hardware for each invested dollar.

As with all new programs, there were considerable hurdles in the initial stages of these programs. The facilities were old, and in most cases not in a very good state of repair due to constrained installation budgets that have plagued the entire force over the last 20 years. This hurt the ability of the states to implement state of the art production techniques. This required that the technology shortfall be overcome by sheer masses of workers. Although this may seem

critical, it is very similar to the level of support that defense contractors provide to their own rebuild programs. Through several visits to the AM General refurbishment facility, it is obvious that the up-front capital investment into these programs by civilian contractors is minimal. The contractor facilities in no way compared to the state-of-the-art production facilities that were dedicated to new equipment. This is a critical area that will have to be addressed for continued success in future programs.

SURGE CAPABILITY

The ARNG has the unique capability to surge its full-time employment capability on a relatively short-term basis. This surge ability is possible due to the traditional soldiers assigned to the National Guard. These are soldiers that currently hold military positions in units that drill one weekend per month and attend one 15-day Annual Training period per year. A force structure of 388,000 soldiers, and 22% of the units falling within the Combat Service Support (CSS) functions, allows for a significant number of traditional soldiers available for duty.¹³ These CSS soldiers for the most part are already trained in maintenance related Military Occupation Specialty (MOS).

ABILITIES OF MATES, CSMS, AND OMS

The ARNG has a robust, full-time maintenance program that offers several thousand, highly-trained maintenance technicians that work in the maintenance arena on a daily basis. It is critical to understand this structure and what it offers.

The Maneuver Area Training Equipment Sites (MATES) are facilities located on installations that have a maneuver area for training or are close enough to training areas to provide support. There are currently 24 of these facilities across the United States. These facilities provide organizational, direct support, and general support levels of service, and employ approximately 2,000 maintenance technicians, who are usually senior enlisted members

in the ARNG with an in-depth experience with heavy equipment, to include ABRAMS Tanks and Bradley Fighting Vehicles.¹⁴

The Combined Support Maintenance Shops (CSMS) are 67 facilities located in every state and territory. These facilities provide Direct Support and General Support levels of service. There are approximately 3,500 maintenance technicians employed at these facilities, and they provide a much more technical pool of experience.¹⁵

The Organization Maintenance Shops (OMS) are 634 facilities located with headquarters units throughout the states. These facilities employ approximately 5,000 maintenance technicians, and provide organizational levels of support.¹⁶ These employees are usually located with specific units, and experience may be limited to certain types of equipment that the unit requires.

When you total up the figures, the ARNG has approximately 10,500 full-time maintenance employees in a Federal Technician status. The number of part-time soldiers is much harder to identify, but a safe estimate would be in the 80,000 range.

LEGISLATIVE PARAMETERS

CURRENT LAWS

A conference report was published in 1999 that laid out parameters for Reserve Components participating in Rebuild Programs. It was contained in Department of Defense Appropriations Act, 1999, Section 8106.

SEC. 8106. The Secretary of Defense shall submit to the congressional defense committees an in-depth analysis comparing the cost of any proposed establishment or expansion of depot facilities by the Reserve Components to the cost of performing the same work at existing depot facilities or by the private sector: Provided, that for purposes of this section, the term "depot level maintenance" does not include General Support Level maintenance activities,

Intermediate Level maintenance activities, or lower echelon maintenance activities.¹⁷

This legislation was clearly supported by the civilian contractors involved in the recapitalization business and the Depot Caucus that was concerned about the Reserve Component being involved in rebuild activities that could possibly challenge Depot work in the future. This section in and of itself did not limit the rebuild activities.

The Conference Report on H.R. 3616, Department of Defense Authorization Act, 1999, Section 375, restricted work that could be done on equipment not belonging to the National Guard.

Section 375. Condition for providing financial assistance for support of additional duties assigned to the Army National Guard. The Army National Guard 2.5 ton Extended Service Program trucks are only for the Army National Guard.

(a) Competitive Source Section-Section 11(b) of title 32, United States Code, is amended to read as follows:

(b) Covered Activities-(1) Excepted as provided in paragraph (2), financial assistance may be provided for the performance of an activity by the Army National Guard under subsection (a) only if-

(A) The activity is carried out in the performance of a responsibility of the Secretary of the Army under paragraph (6), (10), or (11) of section 3013 (b) of title 10; and

(B) The Army National Guard was selected to perform the activity under competitive procedures that permit all qualified public sector and private sector sources to submit offers and be considered for the selection to perform the activity on the basis of the offers.¹⁸

This legislation limits the ability of the National Guard to maximize its potential contribution in the rebuild arena. It requires that overhead costs that are fixed and incurred by the Army regardless of the existence of this program be included in the cost formula when

bidding on projects. The cost basis is not reflective of the actual cost to the Army, but makes the depots and civilian contractors more competitive in the bidding process.

CLARIFICATION ON CHANGES THAT MAY BE NEEDED

Current legislative language allows the National Guard to only work on trucks that will be returned to the Guard inventory to fill shortfalls. This limits the Army's ability to realize and benefit from significant savings. The current legislation was put into place in response to the initiation of a truck rebuild program. If the Guard is considered for larger rebuild parameters that could extend to tanks or Legacy weapon platforms, new and more restrictive language will certainly be introduced. Army leadership could influence the Depot Caucus, but the private contractors would be more difficult to convince.

This is an area that should be addressed through Army Materiel Command at the strategic level. With the speed and ferocious nature that transformation is taking place, contractors should be encouraged to concentrate their efforts on future weapon systems and leap ahead technology. For a contractor to be competing to rebuild 25 and 30-year-old weapon systems does not make sense. Technology is normally classified as existing or new; it only makes sense that contractors should be concentrating on new technology, and it should be highly profitable when they are successful in that segment. The Army would be best served by concentrating its efforts and expertise in the existing technology as it relates to Legacy Force systems. Clearly, no other organization has the experience base or expertise that would compare with that of the Army when referring to internal tanks and weapons systems.

CURRENT NATIONAL GUARD MAINTENANCE POSTURE IN TERMS OF FORCE STRUCTURE

CURRENT LEVELS OF MAINTENANCE STRUCTURE

The ARNG clearly has a huge advantage in experience. Most of the maintenance technicians are senior members of the National Guard with years of experience. Actual figures are difficult to attain, because estimates vary widely. Trying to identify average years of experience that these technicians have on Legacy Force systems varies by source. Most lists show averages in the 14-15 year range, but it is not unusual to find technicians with 25-30 years experience with Legacy Force systems, and 30-40 years of generalized maintenance experience. The Readiness Sustainment Maintenance Site in Mississippi currently reports a potential hiring pool of candidates that average 14.02 years of experience.¹⁹ These are current members of the National Guard, but do not include the full-time maintenance technicians that we have been discussing.

With the current pace of change in the Force Structure environment, it is very difficult to specifically identify the number of personnel that are assigned to ordnance units. At the end of fiscal year 2001, the National Guard had 22% of the force assigned in Combat Service Support slots. Significant portions of those soldiers are working in maintenance related fields either directly or indirectly.²⁰

The surge capacity of the National Guard is well known in other areas, but it is usually accomplished through a Presidential Reserve call-up that is manned with volunteers. In the case of surging a specific portion of the workforce with specific skills, incentives would have to be different. The current members of the National Guard that are employed in the Readiness Sustainment Maintenance Sites, are in a "state" status. They are actually employed by each individual state that has a standing Cooperative Agreement that allows for the federal funds to flow into the military department for each state and be used to reimburse the state for dollars spent on salaries for these employees. This arrangement also allows the state to use the program as job training for some members of the National Guard. Employees of the site are not required to be members of the National Guard, although most of the states require membership

for a large percentage of the employees at these sites. This is not the most attractive option to the Army, the National Guard, or the employee. Wages are usually lower than the wages a soldier would draw if on active duty. It also limits the pool of highly experienced candidates that are currently employed as federal technicians. Most of these technicians have dual retirements: through their Civil Servant status they enjoy in the federal retirement program; and the military retirement they enjoy through their membership in the National Guard. A state position does not enhance either of these retirement programs. If these soldiers were given the same opportunity in an "Active Duty Special Work" military status, it would benefit the size of their military retirement at age 60. Most importantly in the benefit of the Army, this program would be attractive to most senior members of the maintenance work force. They would possibly have the opportunity to retire as a technician, and take limited 6-month tours of Active Duty Special Work (ADSW) as the surge capacity required.

DOES A STRATEGIC NEED EXIST?

There are currently 16 Legacy Force vehicles and weapon platforms identified for recapitalization.²¹ The list includes multiple aircraft, several track vehicles, rolling stock, and stand-alone weapon systems. The ABRAMS Tanks alone are scheduled to be undergoing stages of recapitalization programs through 2012.²² The ability of the Army to successfully complete Transformation while mitigating risk to the United States lies in the successful implementation of the fastest and most cost effective means of recapitalizing these Legacy Force Systems. The defense industrial complex should be growing long-term work forces that will have to be dealt with upon the completion of the rebuild process. Most of these companies have very little incentive to complete the work rapidly, choosing instead to pace the work to support an ever-increasing industrial base. This industrial base is critical to the success of the military, but should be focused on leap ahead technology and platforms of the future.

The importance of each invested dollar should not be diminished. The actual implementation of a strategy requires the resources to support it. Recapitalization should be done at the lowest possible costs, to allow for the quickest possible completion.

Consideration should be given to the development of future maintenance expertise. By surging the current National Guard maintenance infrastructure, the Army will benefit from the experience pool for years to come. The technicians that take the opportunity to accept an ADSW tour will be replaced with new technicians and the soldiers that volunteer for the duty will greatly improve their maintenance skills. Senior leaders should not overlook the strategic portion of this concept. Maintenance expertise has developed over the years because the Army leadership 25 years ago saw the importance of being consistent with equipment and weapons throughout the Army. They sent ABRAMS Tanks and Bradley Fighting Vehicles to the Enhanced Brigade of the National Guard on the front end of the fielding schedules. This allowed the Guard to develop the expertise and experience that has been discussed. While a large portion of the National Guard is focused on the Legacy Systems, some Enhanced Brigades should be receiving the Future Combat Vehicles once identified and fielding schedules published. This allows the Army to leverage the assets that it has in the National Guard, and that is exactly what it should be doing.

IMPLICATIONS TO OVERALL ARMY READINESS

EQUIPMENT READINESS

Implementation of a massive rebuild program in the National Guard guarantees a corresponding increase in equipment readiness across the Army. Through the sheer numbers of units completed and returned to the force, the percentages of equipment available for the fight will increase. The units, which will be most heavily relied on to mitigate the risk of the force as it undergoes Transformation, should benefit most from a robust internal recapitalization

program. There are currently dramatic shortages in trucks among most of the units that will be counted upon to assume high levels of readiness during Transformation. Any opportunity that is seized to expedite the recapitalization schedule will surely have an immediate and significant impact on equipment readiness throughout the force.

MOS READINESS FOR NATIONAL GUARD

Anyone who has worked with the National Guard understands the very limited training time that commanders have to train soldiers. By virtue of being a part-time soldier, it is very difficult for soldiers to maintain proficiency in individual skills. The direct and immediate impact of the soldiers currently working in rebuild programs has been recognized. When given the opportunity to work and hone personal skills on a daily basis, these individuals become very good maintenance personnel. This is a level of competence that may not correlate to readiness reports. The soldier has been reflected as qualified in the assigned MOS for years, but the level of competence and professional knowledge is vastly improved. These soldiers turn into mobilization assets that will perform well above historical expectations.

From a strategic perspective as it relates to force structure, consideration should be given to placing high priority maintenance units in close proximity to these sites. These are highly trained soldiers who would be able to deploy quickly to support contingencies when necessary. Once again it would allow the Army Leadership to leverage known capabilities in the National Guard.

LIKELY COST SAVINGS THAT WILL PROVIDE FOR ADDITIONAL READINESS IN OTHER AREAS

The actual cost savings overall are impossible to predict. Some of the systems would require contractor intervention, others could easily be done within the rebuild program. The best parameters against which to gauge the savings relate to dollar cost per hour of the rebuild

program compared to depot activities and contractor bids. The quotes vary widely, but the rebuild programs are consistently lower, and usually between 55% and 65% of depot and contractor bids. When the figures are sorted out as it relates to the 1,535 ABRAMS Tanks that are currently scheduled for recapitalization, the savings become significant.²³

RECOMMENDATIONS

- There should be a career progression program for National Guard full-time maintenance technicians to move into Army Materiel Command and Tank - Automotive Command. The National Guard soldiers that currently have these opportunities are Title 10 soldiers as opposed to Title 32 soldiers, and have limited knowledge of capabilities at each of the separate states.
- There needs to be a direct and firm signal sent to defense contractors to orient themselves to new technologies. The bid process should not be altered to make any contender more competitive. It should reflect actual cost to the taxpayer, and not include inflated overhead cost that the Army and National Guard are already paying for in installation support.
- The legislative restrictions that limit the National Guard to recapitalizing only National Guard equipment should be reviewed and changed. This restriction inhibits Active Component/Reserve Component integration, and produces an environment that prevents the Army from leveraging one of the great strengths of the National Guard.
- Legislation should be introduced that allows for exceptions to procurement procedures in the recapitalization business when it clearly saves the Army and the taxpayer money when these programs are conducted with soldiers.

- There should be a technique developed that gives credit in the competitive bid process for a military member gaining critical training in identified specialties.

CONCLUSIONS

The successful completion of Transformation and the total and effective integration of components is entirely dependent on the senior leaders of each component understanding capabilities and being able to leverage strengths for the benefit of the entire Army. Some specialization within the components will be required, but that specialization does not have to be exclusive of the other components. An example would be allowing the National Guard to lead the maintenance program in the Army, while assigning high priority National Guard maintenance units within close proximity to established maintenance infrastructure. This would decrease the cost of the Army maintenance program while at the same time raising the level of competence of mobilized soldiers in these maintenance units when needed. Experience clearly shows that when traditional National Guard soldiers are employed on a daily basis in assigned specialties, competence increases and the quality of soldiers provided to the Active Component increases exponentially. The surge capacity of the National Guard has been exploited in a positive manner through mobilizations attached to a multitude of missions. The success of the Army as a whole before, during, and after transformation will be directly related to the ability of the Army to identify and fully leverage the strengths and abilities of each component.

ENDNOTES

¹ Executive Brief for General Wilson, Commanding General, Army Materiel Command, presented by Brigadier General Gillespie, Assistant Commanding General (National Guard), Army Materiel Command, September, 1998.

² Ibid., 12.

³ Ibid., 15.

⁴ National Guard Bureau Memorandum dated 08 August 1995, NGB-ARL-M (750).

⁵ Memorandum For Department of the Army, Office of the Deputy Chief of Staff for Logistics, 05 January 1999, submitted by NGB-ARL-M (700).

⁶ Memorandum sent to states by National Guard Bureau dated 20 December 1995 by NGB-ARL-LF (750).

⁷ Talking Paper prepared for Chief, National Guard Bureau, dated 26 August 1998, by NGB-ARL-M.

⁸ Standard Operating Procedure, drafted by NGB-ARL-M dated 18 January 1999, distributed and applied to all General Support Maintenance Sites.

⁹ Memorandum for GSMS, dated 20 October 1999, prepared by NGB-ARL (750).

¹⁰ Posture Statement Army National Guard Fiscal Year 2002 , Major General Roger C. Schultz, Director, Army National Guard.

¹¹ Ibid. 48.

¹² Ibid. 50.

¹³ Ibid., 30.

¹⁴ Executive Brief for General Wilson, Commanding General, Army Materiel Command, presented by Brigadier General Gillespie, Assistant Commanding General (National Guard), Army Materiel Command, September, 1998.

¹⁵ Ibid. 14.

¹⁶ Ibid. 16.

¹⁷ Information Paper dated 13 October 1998 by NGB-ARL-M

¹⁸ Ibid. 2.

¹⁹ Mississippi Army National Guard, "Mississippi General Support Maintenance Site". Briefing, Camp Shelby, Mississippi, 31 August 2000.

²⁰ Posture Statement Army National Guard Fiscal Year 2002 , Major General Roger C. Schultz, Director, Army National Guard.

²¹ United States Army 2001, Weapons Systems, 181.

²² Ibid., 183.

²³ Ibid., 183.

BIBLIOGRAPHY

Department of the Army, Weapons Systems, 2001.

Owens, Dallas D. Jr. AC/RC Integration: Today's Success and Transformation's Challenge. Strategic Studies Institute: U.S. Army War College, October 2001.

U.S. Army War College. How the Army Runs; A Senior Leader Reference Handbook. 2001-2002.

Department of Defense. Quadrennial Defense Review Report. September 30, 2001.

National Guard Bureau. General Maintenance Repair Site Cooperative Agreement. August 2000.

Department of the Army. Army Logistician. Headquarters Department of the Army, January-February 1999.

Army National Guard. Fiscal Year 2002 Posture Statement. National Guard Bureau, 2002.

National Guard Bureau, Memorandum for Department of the Army, Office of the Deputy Chief of Staff for Logistics. Washington, D.C., 5 January 1999.

National Guard Bureau, "Request for General Support Maintenance Site Business Plan." Memorandum for the States. Washington, D.C., 8 August 1995.

National Guard Bureau, Deputy Chief of Staff for Logistics. "NVD Repair Program Concept Brief". National Guard Bureau, 25 March 1998.

Congressman Gene Taylor, Congress of the United States. Correspondence to Secretary of the Army, Louis Caldera. 24 October 2000.

Brigadier General Gillespie, Deputy Commanding General (NG). "Executive Brief for General Wilson, Commanding General, Army Materiel Command Alexandria, Virginia: Army Materiel Command, September 1998.

National Guard Bureau. "ARNG 2.5 Ton Remanufacturing Program". ARL-M, Information Paper, 13 October 1998.

Texas Army National Guard. Memorandum, "Integrated Sustainment Maintenance (ISM)". Austin, Texas, 5 February 1995.

Department of the Army. The U.S. Army 1997 Modernization Plan. Annex K: Tactical Wheeled Vehicles. U.S. Department of the Army, 1997.

Mississippi Army National Guard. Briefing. "Mississippi General Support Maintenance Site", Camp Shelby, Mississippi: Mississippi Army National Guard, 31 August 2000.

Maine Army National Guard. Briefing. "Readiness Sustainment Maintenance Site", Limestone, Maine. Maine Army National Guard, 1 September 2000.

Kansas Army National Guard. Briefing. "Readiness Sustainment Maintenance Site", Fort Riley, Kansas. Kansas Army National Guard, 31 August 2000.

National Guard Bureau. Briefing. "National Guard Leadership Meeting", 25 February 2001.

National Guard Bureau, "ARNG Equipment Refurbishment General Support Maintenance Sites (GSMS)". Memorandum, 20 October 1999.

Mississippi Army National Guard. General Support Maintenance Site Business Plan. Mississippi Army National Guard, 15 February 1996.

National Guard Bureau, Talking Paper, Purpose: Clarify General Support Maintenance Site missions, functions, and participation in the National End Item Repair Program, dated 26 August 1998.

Mississippi Army National Guard, Memorandum, Subject: Trip Report, dated 15 December 1994.

Army National Guard, Standard Operating Procedures for General Support Maintenance Sites, dated 18 January 1999.

Telephonic interview, Mr. Jon Camp-Logistics Management Specialist, National Guard Bureau, Washington, D.C.

Telephonic interview, LTC Gary Chesser-Chief, ARL-M, National Guard Bureau, Washington, D.C.

Telephonic interview, LTC Gaines Newell, Regional MATES Representative, Mississippi Army National Guard, Camp Shelby, Mississippi.